



Michigan Department of Agriculture

Pesticide & Plant Pest Management Division Annual Report 2005

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***The mission of the
Pesticide and Plant Pest Management Division is to:***

***Protect human health and the environment, while fostering a
diverse, viable Michigan agriculture.***

Introduction



***Kenneth Rauscher,
Director***

This annual report reflects the hard work of Pesticide and Plant Pest Management Division (PPPM) staff and the support of the Michigan legislature, commodity groups, industry, and partners. This year (2005) was very challenging and yet productive for PPPM. We continued to focus our resources on managing Emerald Ash Borer, one of the most significant exotic pests ever to invade this state, while monitoring and managing pathways to control other invasive pests. Our well-trained staff worked closely with industry and consumer groups to insure that pesticides were appropriately available and properly applied, fruit and vegetable commodities were accurately graded, and agricultural products were wholesome, safe and properly labeled to meet consumer needs. Additionally, this division continued its long tradition of facilitating domestic and international trade by insuring that nursery stock and other agriculture commodities met rigorous phytosanitary standards.

We are proud to have served the citizens of Michigan in these diverse regulatory and management responsibilities.



MDA Regional Offices

Region 1	Escanaba	(906) 228-9998
Region 2	Traverse City	(231) 922-5210
Region 3	Grand Rapids	(616) 356-0600
Region 4	Saginaw	(989) 757-7501
Region 5	St. Joseph	(269) 428-2575
Region 6	Lansing	(517) 335-1830
Region 7	Southfield	(248) 356-1701

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Section 1 - Exotic & Invasive Species Pest Management

Emerald Ash Borer

The destructive Asian beetle, the Emerald Ash Borer (EAB), was first identified in 2002 in six Michigan counties (Livingston, Macomb, Monroe, Oakland, Washtenaw, and Wayne). Since its discovery, this exotic pest has been quarantined in 21 Michigan counties and has killed approximately 15 million of Michigan's 700 million ash trees. In addition, several smaller infestations have been found throughout Michigan as well as Maryland, Ohio, Indiana, and Virginia, all located outside the known generally infested area. These infestations are attributed to artificial movement of nursery stock, firewood, and logs.

During the past three years, PPPM along with its partners, the Michigan Department of Natural Resources (MDNR), United States Department of Agriculture (USDA), and Michigan State University (MSU), have learned a great deal about this pest's life cycle, its flight patterns, its reproductive habits, and how it spreads. This collaborative team has come to understand the many challenges of eradicating and controlling EAB. They have focused on utilizing new methods to identify the leading edge of infestations to further suppress the spread of EAB into new areas, with the ultimate goal to lead to eradication.

Detection/Survey Activities

In May 2005, the focus of PPPM's EAB detection activities was a statewide detection tree program using established trees in road rights-of-way. Target densities ranged from 4 trees per township in most of the Lower Peninsula to 18 trees per township in the northern and southern gateways to 36 trees per township.

These trees were monitored in July. Removal and peeling of detection trees began in September. To date, new infestations outside the 21-county EAB quarantine have been detected during the 2005 detection tree process. Included in this total are five new county finds in Benzie, Huron, Isabella, Montmorency, and Van Buren Counties.



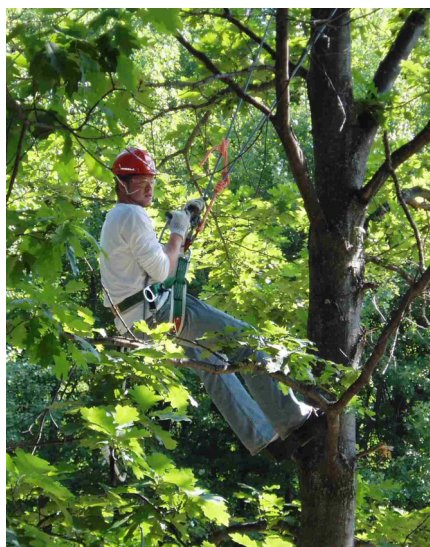
EAB Trap Tree

Survey activities outside of the detection tree program were aimed at high-risk sites such as campgrounds, sawmills, and recreational lakes, yielding a new county find in Mecosta County.

Regulatory Activities

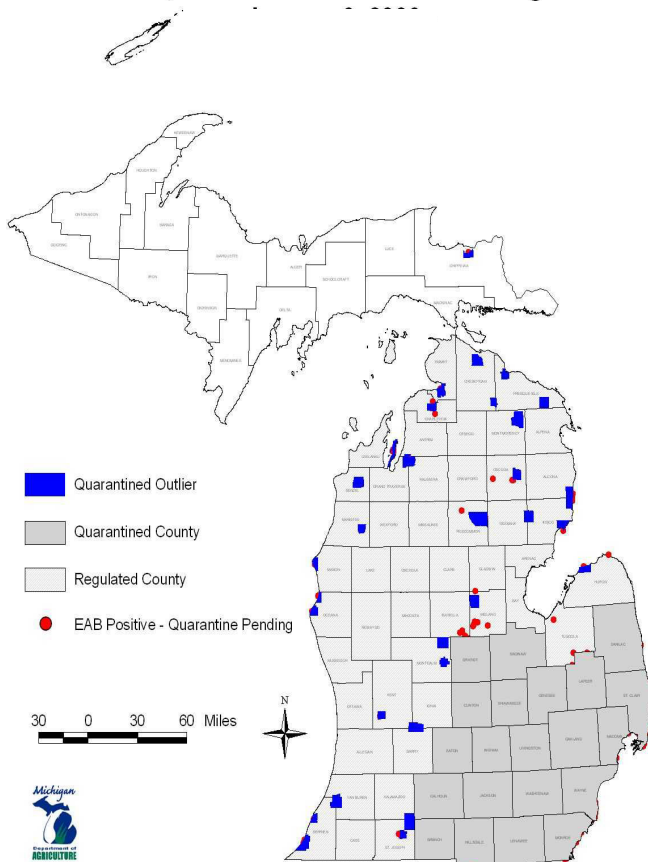
Preventing the artificial spread of EAB continues to be a priority. In 2005, PPPM focused on enforcing the quarantine and increasing compliance. Regulatory activities included monitoring the movement of ash products, conducting regular inspections, investigating and enforcing quarantine violations and issuing compliance agreements to firms that process or have the potential to process ash wood products.

In May 2005, PPPM revised its EAB quarantine to add new outlier sites and define Michigan's Lower Peninsula as *regulated*. In October 2005, the PPPM again revised its EAB quarantine to add more outlier sites and include Sanilac County as quarantined, bringing the total to 21 quarantined counties. Also, the revised October quarantine reflects a total of 31 outlier sites with Brimley confirmed as the first EAB positive in the Upper Peninsula.



EAB Tree Climber

Emerald Ash Borer Regulated Areas, Quarantined Areas, and Recent Detections in Michigan



PPPM staff continued to identify and contact firms and persons that may artificially spread EAB. Licensed nursery and landscape firms have received mailings informing them about the EAB quarantine and the amended quarantine document with the license renewals. Inspectors continued contacting firms such as nurseries, landscapers, firewood dealers, logging and milling companies, utility companies, tree removal and trimming firms, excavation and land clearing firms, municipalities and/or other government agencies, composting yards, and any ash marshaling facilities.

PPPM staff established firewood checkpoints along major interstates leading out of regulated areas during key travel weekends in 2005. The timing of the events were selected to coincide with the Memorial Day weekend, Labor Day weekend, and the weekend prior to the opening of the firearm deer hunting season.

In addition, PPPM staff established random targeted operations on roadways leaving the quarantined areas during the fall of 2005. These events included rest area checkpoints, weight station checks, ride-along patrolling with the Michigan State Police Motor Carrier Division, rest area blitzes, roving blitzes, and road patrols that were conducted primarily during regular business hours on various days of the week. Travelers found to be moving regulated ash were issued a Notice of Violation with the potential of receiving fines for violating the quarantine.

In May 2005, the Emerald Ash Borer program and the Animal Industry Division established an inspection point at the St. Ignace Welcome Center at the Mackinaw Bridge to regulate the movement of ash wood products leaving Michigan's Lower Peninsula.

In 2005, PPPM and USDA-APHIS-PPQ increased its efforts for issuing and monitoring EAB related compliance agreements. Compliance agreements were developed to allow for the movement of such products from quarantined areas to regulated areas in Michigan's Lower Peninsula and to move ash from Michigan's Lower Peninsula to Michigan's Upper Peninsula, which is a non-regulated area. On a regular basis, PPPM staff inspect firms or persons with compliance agreements to verify that appropriate treatment and disposal methods are met, that shipments have the appropriate certification, and records are accurate.

In September 2005, the Michigan State Legislature passed laws that allow PPPM staff to issue citations and new penalties to enforce violations of the EAB quarantine. Penalties now include a state civil infraction; significant fines and jail time are also established. Currently PPPM is developing a pilot program for ticket writing authority and have requested an Originating Agency Identifier (ORI) number to access the Law Enforcement Information Network (LEIN) system.

St. Ignace Inspection Point



Control/Eradication Activities

To date, Michigan has detected several isolated EAB infestations outside the known generally infested area. These outliers were prioritized for removal based on their pest populations, location, risk of spread, and national/international significance.

PPPM completed four control activities in 2005 and began activities in three additional sites. Of the seven total sites, six were eradication actions that occurred in St. Joseph County, Nottawa Township; Hillsdale County, Camden Township; Chippewa County, Bay Mills Township; Berrien County, Chickaming and Lake Townships; and Cheboygan County, Benton Township. One site was a containment action consisting of six 200-yard removal sites in St. Clair County, Cottrellville Township including Harsens Island. To eradicate EAB, PPPM staff removed all ash trees located within a one-half mile radius of the last known EAB infestation in an outlier area. They also conducted 200-yard cuts of ash trees in key control areas in order to suppress and minimize further EAB spread.



To help address tree removal needs, Governor Jennifer M. Granholm called upon various state agencies to identify possible tree removal alternatives for those in hardest hit areas. As a result, the state Departments of Agriculture and Management and Budget developed an innovative plan that builds on earlier efforts to use Michigan's collective contract system as a vehicle for pooling demand and generating lower prices. Over 100 communities have participated in the mandated orientation sessions for participation in the Municipal Ash Tree Removal Contract program. This is a voluntary, self-funded program designed to assist communities in their EAB tree removal efforts by using the State of Michigan's bulk contracting power. Only local units of government may access the contract on behalf of the homeowners for a mass removal by one of the 26 Michigan-based contracting companies. A number of cities and townships have confirmed their participation.

Disposal Activities

EAB Disposal Yard

In response to the regulation of ash movement out of the quarantine, PPPM created nine marshaling yard operations from 2003-2005. PPPM-sponsored marshaling yards were in place in the following locations: Ann Arbor, Flint, Lansing, Macomb, Plymouth, Riverview, Waterford, Westland, and Whitmore Lake. In June of 2005, the marshaling yards exceeded their budgeted allowance from the EAB program and received a stop-work directive from MDA. From January 2005–June 2005, a total of 90,537 tons of material was chipped for incineration at a co-generation plant for the production of electricity.



In addition to disposal by chipping within the marshaling yards, PPPM also worked with contractors to develop and expand the utilization of wood in alternate uses to chipping for fuel in order to help sustain the marshaling yard operations and reduce costs of the grinding operations. The marshaling yard operations were supported by PPPM in their proposals to bandsaw lumber, railroad ties and other products from the logs brought into the marshaling yards. In addition, logs were permitted to move to a permanent sawmill that was established in Flatrock, to digest ash logs for the manufacture of ash doweling for tool handles and other implements. In the cases where logs were marketed from outlier eradication actions, the value was returned to the community in all cases.

Outreach Activities

Timely and clear communications, outreach, and education efforts are essential in every aspect of the EAB program. Increased public awareness and understanding enhances compliance with the EAB quarantine and supports the state's overall eradication efforts.

In 2005, communications staff developed a detailed outreach and education process for each area impacted by EAB, to outline the state's plan, and to provide an opportunity for impacted property and business owners to ask questions. This process included a series of public meetings, media updates, and "tag-a-long" opportunities.

PPPM produced and disseminated outreach and educational materials to stakeholders as well as the general public. Staff hosted numerous informational booths, educational seminars, workshops, and group discussions at the state and national level, including an outreach message in all Consumers Energy bills for the month of September.



An advertising campaign was initiated and included utilizing seven billboards along major northbound interstates, radio public service announcements, and other publications highlighting the "Don't Move Firewood" message.



Giant Hogweed

A major communications effort occurred when Governor Granholm declared May 23-28, 2005 as "Emerald Ash Borer Awareness Week." A kick-off press conference was held at Washington Park in Lansing. One hundred ash trees were marked, providing a visual picture to the several media outlets that were present for presentations by Pat Lockwood, EAB Policy Director, and former MDA Director Dan Wyant, and representatives from the DNR and USDA.

Cooperative Agricultural Pest Survey (CAPS)

Surveys for the detection of exotic terrestrial plants and plant pests are facilitated through the PPPM's participation in the Cooperative Agricultural Pest Survey (CAPS) program. Administered by USDA-APHIS-PPQ, this program provides federal funding to conduct early detection activities for the most critical invasive pests of agriculture, horticulture, forestry, the environment, and human health. Early detection of foreign pests that have eluded first line inspections at ports-of-entry is crucial to the successful implementation of control measures. Target pests for CAPS surveys in 2005 included exotic woodboring insects, soybean rust, hemlock woolly adelgid, giant hogweed, sudden oak death, and others.

Gypsy Moth

PPPM's Cooperative Gypsy Moth Suppression Program provides county governments an opportunity to receive cost-share funding to manage gypsy moth populations on public and private property.

In 2005, PPPM contracted for the treatment of 4,316 acres in six counties using the biological insecticide, *Bacillus thuringiensis*, to suppress developing gypsy moth populations. Approximately 98.9% of treatment areas were protected from defoliation.



Contracted aerial application of the biological insecticide *Bacillus thuringiensis* in Roscommon County as part of the MDA's Cooperative Gypsy Moth Suppression Program.

Section 2 - Plant Pest & Commodity Certification

PPPM's Plant Pest and Commodity Certification programs facilitate interstate, intrastate, and foreign trade through inspection and certification of nurseries and plant material and by providing an unbiased, third party inspection service for the produce industry through the fruit and vegetable inspection program. The goals of these programs are to:

- Prevent the spread of harmful pests and diseases which could lead to serious ecological and economic losses.
- Facilitate the export of plant-based commodities (dry beans, grain, hay, nursery stock, logs and lumber) to markets in over 55 countries.
- Assure that plants purchased by consumers meet requirements for viability, trueness to varietal name, and quality standards.
- Assure Michigan fruit and vegetable producers meet the requirements necessary to access local and international markets.



Nursery Program

Nursery inspections facilitate the sale of plant materials, such as hardy perennials, trees, shrubs, herbaceous perennials, small fruit plants, and hardy bulbs. Michigan nursery and perennial plant producers generate about \$291 million in annual sales. Sales of Christmas trees by Michigan producers generates another \$41.5 million, representing 2.87 million trees (2004 values); while sales of wreaths and boughs account for an additional \$1.3 million. Michigan nursery growers produce stock for sale within the state and also ship to over 35 states and many foreign markets. Through the inspection process, PPPM ensures that plant materials entering market channels are free of pests and diseases.



In addition to inspecting for pests and diseases, PPPM field staff also make sure that production areas are free from weeds. For those plants destined for out-of-state

markets, the commodity must meet the phytosanitary requirements of the receiving state. Inspectors visit nursery stock dealers who receive stock from high-risk states to review shipping documents and confirm that the stock is free of pests and diseases. Import inspections are also performed at the grower and dealer level when nursery stock arrives from foreign sources.

PPPM staff averted major losses in the ornamental industry in 2005 through their vigilance. Staff detected and restricted diseased plants and bulbs coming from Europe in epidemic proportions. Hosta virus X ran rampant through the industry, however, PPPM staff prevented sales to consumers by restricting infected plants at dealer locations. Staff also provided expert documentation of infected grower inventories such that producers could have recourse with their overseas suppliers.



PPPM staff also safeguarded hemlock resources in Michigan by inspection of hemlock trees coming from out-of-state nurseries. Over 100 trees were rejected for quarantine violations, ie they originated from an infested area. Also several hundred trees were temporarily held pending proper certification from officials in the state of origin.

Export – Interstate Certification

PPPM certifies nursery stock, Christmas trees, logs, hay, and bedding plants for interstate shipment. PPPM staff ensure that plant materials meet the quarantine requirements of the receiving states. Of primary importance are five major quarantine-significant pests: gypsy moth, pine shoot beetle, emerald ash borer, Japanese beetle, sudden oak death, and black stem rust.

Foreign Export

Under a cooperative agreement with USDA, commissioned PPPM staff members receive training and authorization to issue federal phytosanitary certificates to facilitate trade in foreign markets. During 2005, PPPM staff issued federal phytosanitary certificates to facilitate the export of Michigan commodities shipped to over 55 countries worldwide. The vast majority went to our trading partners in Canada and Mexico, as well as to Europe and South America. The two largest export categories by volume are propagative items (nursery stock and agricultural seed) and grain for consumption. Logs and lumber constitute the third largest volume category.



PPPM also monitors compliance with special export programs to assure producers meet the requirements of these new initiatives. The Apples to Mexico program is the most recent initiative facilitated by a partnership between MDA, USDA, the Michigan Apple Committee, MSU, and Mexican officials. The US/Canada Greenhouse Certification Program is another successful export program facilitated in Michigan by PPPM staff.

PPPM assured that exporter's products met new entry requirements for wood crating, pallets, and packing materials. Outreach with industry assured that shippers did not have product destroyed at foreign ports or returned unopened. Staff

educated shippers regarding the newly implemented International Standards for Phytosanitary Measure #15 that requires heat treatment or fumigation of wood used in shipping.

Plant Pathology Laboratory Activities in Support of Export

The PPPM plant pathology laboratory located within the MDA Geagley Laboratory performs many activities in support of certification and export. These activities include blueberry certification, dry bean testing, seed corn certification, soybean cyst nematode survey, plus pox virus survey, and sudden oak death survey.

Biotechnology and Plant Post-entry Quarantine (PPQ) Import Permits

To facilitate safe introduction of foreign genetic material to improve the quality of fruit trees and other crops in Michigan, PPPM reviews applications and issues import permits in cooperation with USDA-APHIS. In FY05, PPPM in agreement with USDA-APHIS, approved a total of 40 biotechnology permits for four companies and four research institutions in Michigan. Three permits were issued for field trials studies, three for interstate movement, and 33 for both field trials and interstate movement. Ten different types of crops were permitted. Biotechnology activities took place in eight counties.

Fruit and Vegetable Inspection Program

The Fruit and Vegetable (F&V) Inspection program offers an unbiased, third-party inspection service for the produce industry in Michigan and throughout the United States. Fruit and vegetable inspections are based on



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USDA standards, Michigan standards, processor specifications, and/or industry needs. This program is voluntary with the exception of the following: exports, school lunch programs, and government purchases. All F&V staff are licensed by USDA on each commodity they inspect.

Shipping Point Inspections

Shipping point inspections assure the quality and condition of produce prior to shipment. This type of inspection verifies that the produce meets the grade marked on the containers and bags. Some shipping point inspections are mandatory such as exports, school lunch program, and government purchases. USDA grades are recognized throughout the world and are used to determine the value of produce.

Process Inspections

Approximately 26 temporary seasonal fruit and vegetable inspection staff perform inspections on raw produce received from farmers at process plants and receiving points. The inspections are based upon USDA standards or process specification. Process inspections protect Michigan farmers by providing them with an unbiased third-party inspection on their incoming produce. In addition, they protect processing plants from receiving poor quality produce from Michigan farmers and they protect Michigan consumers from receiving poor quality produce in processed goods.



Market Inspections

Fruit and vegetable inspection staff are licensed by USDA to conduct market inspections on produce that have entered the channels of trade from anywhere in the world. Market inspections protect the buyer, broker, and consumer from receiving poor quality produce or produce which does not meet the promised grade or condition. Often market inspections help to resolve disputes which sometime end up in court. Market inspections are vital to the survival of Michigan's buyers/brokers/receivers of produce worldwide. MDA has five F&V inspectors and supervisors licensed to inspect incoming market loads of produce.

Good Agricultural Practices, Good Handling Practices (GAP/GHP)

Good Agricultural Practices, Good Handling Practices (GAP/GHP) were developed by USDA as a result of requests from states, shippers, and growers. This is an independent, third-party, audit-based service provided by licensed fresh fruit and vegetable inspectors who have successfully completed the GAP/GHP training class and have participated in a minimum of five audits, including one as the lead auditor. There are currently two Federal/State fruit and vegetable inspectors that are licensed to perform audits for GAP/GHP in Michigan.



The purpose of the GAP/GHP audits is to ensure that companies that request audits are practicing GAP/GHP when the audits are performed. This audit is required by some purchasers of produce and is mandatory to participate in the school lunch program.

Controlled Atmosphere Storage Licensing Program

Eating crisp, juicy, flavorful Michigan apples year-round is possible due to controlled atmosphere storage. This process is simply known as "CA" in the industry. Controlled atmosphere storage involves careful control of temperature, oxygen, carbon dioxide, and humidity. All controlled atmosphere rooms are inspected and sealed by F&V inspection staff.

Phytosanitary Inspections

The phytosanitary certificate certifies that the product has been inspected and is free of regulated pests and diseases. Export certificates are used to document the phytosanitary condition of exported plants and plant products.

Wholesale Potato Dealer Licensing Program

This program protects Michigan potato growers in case a wholesale potato dealer fails to pay for potatoes purchased. PPPM requires wholesale potato dealers to post a bond or letter of credit as a condition of licensing. PPPM issued 19 licenses through the wholesale potato dealer licensing program in FY05.



Seed Potato Inspection

Michigan seed potatoes require mandatory inspection prior to shipment to various farms throughout the nation. It is critical to have that final opportunity to check for disease that could impact potato production throughout the United States. Using certified seed helps to ensure high quality production. Michigan is a leading national producer of potato seed, with the largest market for its production here in Michigan. In the fall, F&V inspection staff conducts quality control inspections during harvest of Michigan seed potatoes prior to placement in storage bins for shipment in the spring. During FY05, F&V inspectors conducted 341 mandatory inspections on approximately 12,526,500 pounds of seed potatoes.

Dry Edible Bean Inspection

The dry edible bean inspection program is voluntary. Total inspections were slightly lower but up in the number of total pounds inspected in 2005. This was due to more inspections of black beans going to Mexico. The F&V dry bean inspector issued 324 certificates and conducted inspections on 30,579,156 pounds of dry edible beans during FY05.



Michigan Organic Registration Program

Michigan law requires registration of organic certifying agents, handlers, and producers. During FY05, PPPM registered 9 certifying agents and 164 handlers and producers.

PPPM received \$65,000 from USDA for federal organic cost-share reimbursement during FY05-FY08. The funds were distributed to 97 Michigan organic producers/handlers during FY05. This program reimbursed organic handlers/producers for a portion of their certification costs.



Section 3 - Emerald Ash Borer, Plant Pest & Commodity Certification Statistics

Emerald Ash Borer Statistics

Detection/Survey

Statewide Detections Trees Established	9,500
Statewide Detections Trees Peeled	5,789
Counties with Detection Trees	67
New Infestations from Detection Program	28
New Counties Quarantined from Detection Program	5
High Risk Surveys	5,113

Regulatory

Quarantined Counties	21
Quarantined Outliers	31
Regulated Inspections	6,000
Compliance Agreements	155
Ash Firewood Confiscated at Checkpoints	6,700
Notices of Violations Issued at Checkpoints	76
Targeted Operations	55
Notice of Violations Issued at Targeted Operations	30
Total Prosecutions	7
Bridge Inspections	
Commercial Trucks	6,222
Cords of Pulpwood	88,559
Chips & Sawdust Tonnage	73,754
Sawlogs	29,581
Sawn Lumber Board Feet	2,888,041
Firewood Inspected Cubic Yards	750
Notice of Violations	39
Firewood Voluntarily Dropped in Mackinaw City	500

Control/Eradication

Ash Tree Removal Program	12
Communities Participating	

Disposal

Tons of Material Chipped at Marshaling Yards	312,000
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Outreach

Distributed Outreach Materials	321,000
Firewood Facts Sheets	11,000
EAB Hitchhiker Brochures	214,000
Alert Emerald Ash Borer Billfold	84,000
Temporary Tattoos	11,200
Educational Packets	115

Public Meetings

27



Inspecting/Certifying/Surveying Plants & Plant Products Statistics



NURSERY Licensing

Total Licenses	6,982
General Nursery Licenses	1,288
Plant Grower Licenses	157
Dealer in Nursery Stock Licenses	4,542
Plant Dealer Licenses	595
Small Scale Grower Licenses	319
Small Scale Dealer Licenses	81
Total Growers Licensed	1,764
Total Dealers Licensed	5,218

Nursery Inspections

Growers: Total Acres Inspected	10,847
Dealers: Dealers Inspected	532

Christmas Tree Inspection – Federal Gypsy Moth & Pine Shoot Beetle Quarantines

Fields Inspected	589
Percent of Fields in Compliance	94%
Acres Inspected	11,203

Pine Shoot Beetle Compliance Management Program

Firms Enrolled	13
Fields Enrolled	59

Export Certification

Federal Phytosanitary Certificates Issued

Commodity Type	Phytos
Propagative Commodities (plants, cuttings, seeds, and bulbs)	1,041
Beans & Grains	826
Logs & Lumber	423
Fruits & Vegetables	111
Total Phytos Issued	2,433

Nursery Firms Issued Compliance Agreements for Federal/State Quarantines

Black Stem Rust	32
Gypsy Moth	121
Japanese Beetle	99
Pine Shoot Beetle	55

FRUIT & VEGETABLE Certificates Issued

Shipping Point Inspections	2,409
Process Inspections	42,021
Market Inspections	1,107
GHP/GAP Audit Inspections	10

Dry Bean Certificates Issued

Dry Bean Inspections	324
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Licenses Issued

Controlled Atmosphere Licenses	164
Wholesale Potato Dealer Licenses	19

Federal Phytosanitary Certificates Issues

Apple Shipments Inspected	78
Blueberry Shipments Inspected	6

State Phytosanitary Certificates Issued

Apple Shipments Inspected (California)	3
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Organic Registration

Handlers/Producers Registered	164
Certifying Agents Registered	9

Organic Cost/Share Reimbursement

Handlers/Producers Reimbursed	97
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Plant Pathology Laboratory Statistics

Plum Pox

5,645 Prunus trees tested for plum pox virus (PPV).
No viral symptoms detected.

Dry Bean Testing

156 dry bean samples tested; 83 were certified and 73 were non-certified.
6 samples of certified seed and 10 of non-certified seed tested positive for bean blight.
2 non-certified samples tested positive for Common Bean Mosaic Virus (CBMV).
All certified samples tested negative for the virus.

Soybean Cyst Nematode

142 nematode samples collected from 25 nurseries in 14 counties.
33 samples collected from seed potato fields (15 growers in 8 counties, 1,050 acres)
Neither SCN nor golden cyst nematodes were detected in any samples.

Sudden Oak Death

558 samples collected from 62 facilities (June 6 and August 24, 2005).
52 samples tested positive on ELISA but all PCT results were negative for *Phytophthora ramorum*.

Cooperative Agricultural Pest Survey (CAPS)

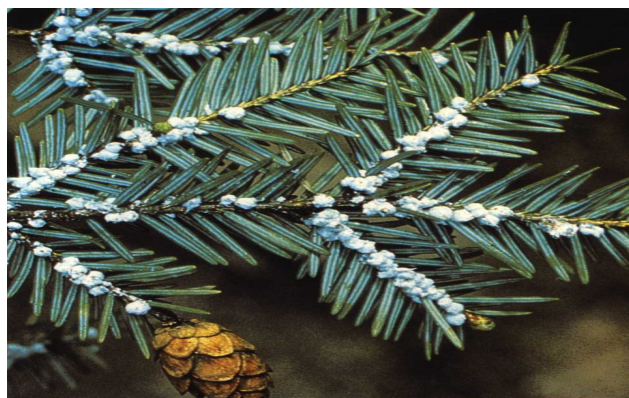
Sudden Oak Death (SOD) - 758 plant samples collected at 33 production nurseries statewide as part of the National *Phytophthora ramorum* (SOD) Survey. All samples tested negative.

Hemlock Woolly Adelgid (HWA). Over 7,200 hemlock trees inspected at 196 nurseries, 46 native stands in 62 counties. All inspections were negative.

Giant Hogweed - Nearly 350 calls received from public reporting suspect giant hogweed. 9 calls followed-up by PPPM inspectors with 2 new confirmed giant hogweed infestations in Oakland and Mecosta Counties.

Exotic Woodboring Insect Desk Survey - Over 250 commercial and industrial firms contacted. 68 firms found importing products and/or materials with solid-wood packing material. Firms targeted during inspection/trapping activities in 2006.

Soybean Rust – 10 sentinel plots monitored 100 times during summer as part of a national survey. No soybean rust detected.



Section 4 - Food Safety & Consumer Protection

PPPM's agricultural products program is responsible for regulating commercial animal feeds and remedies, grain elevator sanitation practices, seed, lime, and fertilizers. The goal of this program is to:

- Prevent adulterated grain, animal feeds, and fertilizers from entering commerce.
- Prevent livestock illness and death due to adulterated or misbranded feed or remedies.
- Prevent animal feed establishments and grain storage facilities from operating under unsanitary conditions that could endanger the health of animals and the public.
- Prevent deceptive labeling practices involving the sale of feeds, remedies, seeds, and fertilizers.
- Investigate reports of animal deaths or illnesses where feed may be implicated.
- Assure that feeds, remedies, seeds, and fertilizers are properly labeled.
- Guide industry concerning practices that assure food safety and protect consumers.

Through its inspections of feed, seed, fertilizer, liming materials, and animal remedy products, PPPM helps to assure that agricultural products and commodities are marketed fairly and are safe for their intended uses. Michigan producers and industry rely on the fertilizer and seed quality assurance and consumer protection programs to produce high yields of crops valued at over \$2.5 billion. Inspections of feed manufacturing practices, the products, and their labels also help assure that the \$1.7 billion worth of meat, eggs, and dairy products obtained from production livestock are safe and wholesome.

Bovine Spongiform Encephalopathy (BSE or “Mad Cow Disease”)



PPPM is an active participant in a national effort led by the US Food and Drug Administration (FDA) to prevent the establishment and amplification of BSE in the United States by controlling the use of certain animal-derived proteins in animal feed, and in so doing minimize any potential risk to animals and humans. Under this program, PPPM inspectors have been inspecting feed manufacturing facilities throughout the state since 1998. All firms handling restricted protein materials are being inspected at least yearly to assure continued compliance. In 2005 nearly 100 routine inspections helped to assure that Michigan livestock and consumers were protected. In September, PPPM became the recipient of a grant that will be used to enhance the scope and effectiveness of the state's BSE compliance assurance program.

Medicated Feed

Therapeutic and production drugs are commonly administered to livestock through their feeds. For this reason, PPPM monitors the manufacturers of these feeds closely for compliance with federal regulations covering manufacturing practices that are designed to prevent unsafe drug residues in human food.

Annual Feed Contaminant Survey

A partnership with FDA that enables PPPM to survey animal feeds for pesticide residues, was expanded in 2000 to include testing for mycotoxins. This partnership is now in its ninth consecutive year. The information obtained is useful in determining if additional measures are needed to prevent harmful residues in human food. In FY05, PPPM inspectors collected 16 livestock feed samples. Two FDA laboratories tested eight of the samples for pesticide residues and eight for mycotoxin contamination. The results once again indicated that there were no actionable levels of mycotoxins and no illegal pesticide residues in any of these feeds.



Animal Remedies Program

Modern animal husbandry practices often demand the use of drugs and vaccines to prevent or treat diseases that can harm herd health and cause decreases in production. Unhealthy animals can also increase the risk of food-borne disease in humans. Many drugs and vaccines are also used extensively by homeowners in the care of their pets. The objective of the PPPM Animal Remedy Program is to provide assurance that these drugs and vaccines are safe, properly labeled, and effective for their intended uses.

Elevator and Feed Mill Sanitation Program

Through this program, PPPM inspectors help to assure that unsanitary grain storage conditions that can negatively impact the safety of Michigan's food supply are eliminated. This also helps to prevent costly economic losses due to pests and other forms of environmental or chemical contamination. Through these inspections, PPPM helped to protect the wholesomeness of nearly 145 million bushels of grain and 250 million pounds of dry edible beans valued at \$1.8 billion.

Seed Program

There are approximately 450 seed labelers and 140 dealers who process and distribute agricultural and non-agricultural seed in Michigan. Michigan farmers spend nearly \$316.9 million annually on agricultural seed in producing more than \$2.7 billion worth of grain and hay. The objective of the seed program is to ensure that the seed purchased by Michigan growers and homeowners for planting purposes is of good quality and meets standards for germination, purity, and freedom from noxious weeds established in the Michigan Seed Law. Through the seed program, PPPM also provides oversight of seed certification activities that ensure the genetic purity of plant varieties and other standards of quality.

PPPM also assists USDA in assuring that seed companies comply with various federal seed requirements. The division plays a role in the enforcement of the Federal Seed Act by providing samples and documentation for seed shipped in interstate commerce. PPPM also provides samples of selected seed kinds to the USDA, which verifies varietal claims.



Fertilizer and Liming Program

The fertilizer and liming program regulates over 600 manufacturers and distributors of over 1.5 million tons of fertilizers, soil conditioners, and liming materials for both farm and non-farm use. Fertilizer is the most widely used agrichemical, over 5.5 million acres of Michigan farmland are treated with fertilizers, lime, and soil conditioners. Michigan producers and industry rely on this quality assurance and consumer protection program to maximize yields and maintain a profitable agricultural operation. In addition, millions of state residents depend on this program to protect them from fraud when purchasing fertilizer for home and garden use.



PPPM collected 618 agricultural and specialty use fertilizers in 2005. Analysis results are compared to the plant nutrient claims on the product label to verify label guarantees. As part of activities to improve compliance, PPPM sent stop-sale notices to firms with violative sample results and worked with these firms to review their blending and manufacturing procedures. Fertilizer samples provide relevant information about industry operations and help in making sound enforcement decisions that will ensure a wholesome food supply.

Section 5 - Pesticides & Agrichemicals

Inspections/Investigations

PPPM conducts a variety of inspections and investigations to assure that pesticides are used in compliance with state laws and regulations and in a manner that minimizes adverse effects on human health or the environment.



Pesticide inspections monitor the compliance of an individual or firm through routine contacts either in the field or at business locations. These inspections are briefly described in program statistics listed on page 20. Pesticide investigations are based on an alleged violation and are conducted to determine if the allegation is true as well as monitor compliance with all pesticide regulatory requirements. In either case, detection of violations will result in appropriate enforcement action and compliance assurance.

Common pesticide inspection activities include road patrol inspections where inspectors encounter commercial pesticide applicator businesses (PAB) operating in the field, federal and state market place inspections at locations where pesticides are sold, federal inspections at pesticide manufacturing facilities, and bulk storage inspections. Planned use inspections are a comprehensive inspection which may occur at a variety of operations, such as commercial businesses, schools, private farm operations, and other locations where pesticides are used and pesticide regulatory requirements apply. Other inspections may include targeted compliance monitoring efforts like PAB license contacts, Integrated Pest Management (IPM) in schools, emerald ash borer inspections, and others where specific entities and regulatory provisions apply.

Pesticide investigations usually start with the receipt of a complaint alleging one or more potential violations of Michigan pesticide laws or regulations. Within 24 hours, PPPM field staff contact the complainant and investigate the allegations. Inspectors also collect physical, photographic, and documentary evidence to determine if violations occurred. Like an inspection, investigations also use an objective approach to determine compliance with all applicable regulatory requirements. PPPM conducted 182 investigations in FY05.

Certification

In Michigan, pesticide applicators who apply restricted use pesticides (RUPs) must become certified to use or supervise the use of RUPs. This requirement applies to private applicators that produce agricultural commodities or commercial applicators (applicators that are not private). In addition any person that applies a pesticide, other than a general use, ready to use pesticide (as defined), as part of their job duties must be a certified or registered applicator. Registration and certification of applicators ensures that persons that apply pesticides achieve a regulatory level of comprehension appropriate to apply pesticides. There are 22,251 applicators certified to apply pesticides in Michigan.



Registration

Pesticides sold, offered for sale, or used in Michigan must be registered with PPPM. This program gives PPPM the ability to regulate which products are allowed to be used in Michigan and also allows PPPM to place additional use restrictions on pesticides when warranted to protect human health or the environment. Generally speaking, pesticides that are registered in Michigan are first registered by the Environmental Protection Agency (EPA) where they undergo a number of environmental and toxicological assessments. Pesticides are registered

Pesticide & Plant Pest Management Division

for sale annually and in addition to registration fees, registrants also pay an annual groundwater fee that supports environmental stewardship projects. PPPM registered 13,000 pesticide products in 2005.

Worker Protection Standards

PPPM cooperates with EPA in the implementation of the Federal Worker Protection Standards (WPS). The WPS was designed with the intent to reduce, prevent, and/or minimize agricultural worker's exposure to pesticide residues. The WPS requires that agricultural employers provide basic pesticide safety training to their agricultural employees. In addition, the WPS establishes restrictions on worker entry into treated areas, provides a communication systems so workers know when and where pesticides have been applied, and requires employers to provide decontamination facilities (water, soap, and towels). PPPM conducts inspections at agricultural facilities that employ workers to insure compliance with WPS.

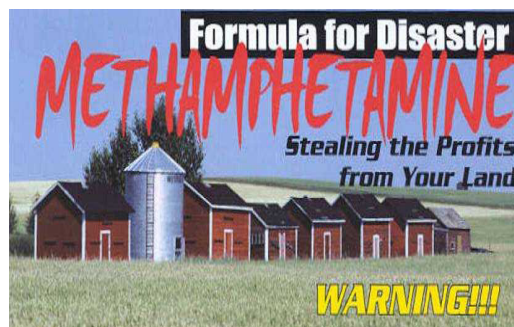


Pesticide Enforcement Activities

When PPPM detects violations of Act 451, Part 83, Pesticide Control, or regulations thereunder, PPPM has a variety of enforcement activities that can be used to gain compliance and issue penalties. Options include warning letters that require a written response as to how an individual or firm will comply with requirements or hearings where PPPM and the defendant review findings and develop a compliance agreement. PPPM can issue administrative penalties (fines) or work within the judicial system to seek warrants and prosecute violators. PPPM may also conduct formal hearings to revoke business licenses or certification/registration credentials. FY05 enforcement activities are itemized in detail in Section 6.

Agrichemical Safety and Security

In response to recent world events, PPPM strives to ensure that fertilizers and pesticides are stored properly and securely to prevent bioterrorism and other misuse. In 2005, MDA continued its outreach efforts and partnerships with state agencies and stakeholders to advise agricultural dealers and farmers on how they can help deter illicit use of agrichemicals while protecting their safe, intended use. Activities included inspecting over 1,900 bulk storage containers to ensure they were locked and secure, participating in the Michigan Methamphetamine Task Force Committee, numerous security bills were introduced in the Michigan House and Senate to advance anhydrous ammonia safety and security practices, and Michigan signed ammonium nitrate security legislation (Public Act 68) in July 2005.



Bulk Storage Program

Over 62 million gallons of Michigan agrichemicals are safeguarded through the bulk storage program. During 2005, PPPM staff inspected and registered 224 fertilizer and pesticide bulk storage facilities, 94 reinspections were conducted to ensure compliance. PPPM staff also arranged site visits with new firms to discuss and provide assistance with containment construction, siting, emergency response plans, and recordkeeping. The bulk storage program ensures that commercial bulk storage facilities are constructed, installed, and maintained in a safe manner with the least possible impact on people, property, and the environment.



PPPM partnered with the Groundwater Monitoring Program to conduct a three-year groundwater sampling project at bulk storage facilities. The information from this water quality-monitoring project will be used with results from other wells around the state to develop pesticide management plans that protect Michigan's groundwater.

Section 6 - Food Safety, Consumer Protection & Environmental Protection Statistics



FOOD SAFETY & CONSUMER PROTECTION

Inspections

Total No. of Inspections	2,518
Agricultural Products	1,644
BSE Rule Compliance	98
Bulk Storage	318
Grain Elevator Sanitation	344
Federal Contract Medicated Feed	5
State Medicated Feed	109
Complaint Investigations	16
Products Sampled	1,602
Feed	471
Pesticide Residue	8
Mycotoxins	8
Fertilizers	618
Groundwater Samples	
Bulk Storage	20
Seed	493

Licenses/Registrations

Animal Remedies	
Product Registrations	1,575
No. of Registrants	117
Commercial Feed Manufacturer/Distributor	1,155
Michigan Firms	307
Out-of-State Firms	848
Fertilizer Manufacturer/Distributor	517
Michigan Firms	201
Out-of-State Firms	316
Specialty Fertilizer & Soil Conditioner	
Products Registrations	3,797
Liming Materials	
Product Registrations	66
Agrichemical Bulk Storage Facilities	224
Fertilizer Product Distribution (July 04-June 05) Tonnage	1.55 million tons
Commercial Feed Product Distribution (July 04-June 05) Tonnage	2.12 million tons

Agricultural Products Enforcement (Feed, Seed, Fertilizer, Remedies, Lime, Bulk Storage, Elevator Sanitation)

Violation Notices	
Failure to License/Register	705
Stop Sale	212
Violative Products Seized	\$760,000 value
Warning Letters	20
Informal Hearings	4
Compliance Agreements	8

ENVIRONMENTAL PROTECTION STATISTICS

No. of Licenses/Certifications/Registrations

Commercial Pesticide Applicator	
Business Licenses	1,900
Restricted Use Pesticide Dealer	
Licenses	266
Commercial Pesticide Applicator	
Certifications	13,458
Private Pesticide Applicator	
Certifications	8,793
Commercial Registered Applicators	1,233
Total Certification/Registration Exams	
Administered	13,916
Pesticides Registered in Michigan	13,000

Pesticide Inspections/Investigations

Pesticide Misuse Investigations	
(agriculture)	41
Pesticide Misuse Investigations	
(non-agriculture)	141
Planned Use Investigations	
(agriculture)	25
Planned Use Investigations	
(non-agriculture)	48
Other Inspections	1,175
Restricted Use Pesticide Sales Audits	38
Federal Marketplace Inspections	23
Federal Pesticide Producer	
Inspections	36

Pesticide Enforcement

Advisory Letters	10
Warning Letters	54
Stop Prohibited Conduct Orders	501
Hearings	1
Administrative Penalties (\$23,503 in	
FY05)	12
Prosecutions	5

Freedom of Information Act (FOIA) Requests

Pesticide Program Requests	103
Plant Industry Program Requests	9
Emerald Ash Borer Program Requests	5



